

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-20 (canceled)

21. (original) An operating method to erase, programming and reading data on a flash memory, wherein a wordline voltage, a bitline voltage and a p-type doped well voltage are respectively applied to a control gate, a drain and a p-type doped well, all of which correspond to a selected flash memory cell; a source of the flash memory is a common source, and electrically connected via a deep n-type doped well; the drain is commonly used by the selected flash memory cell and an adjacent flash memory cell; and the p-type doped well is located between adjacent control gates corresponding to the drain, the operating method comprising:

applying a high voltage to the p-type doped well, while maintaining the wordline in a ground state, and the bitline and the common source in a floating state, thereby performing an erase operation;

applying a high voltage on the wordline while applying a voltage lower than the wordline voltage to the bitline voltage, and maintaining the voltage of the common source and the p-type doped well voltage in the ground state, thereby performing a programming operation; and

applying a proper voltage to the wordline while applying a voltage lower than the wordline voltage to the bitline, thereby performing a read operation.

22. (original) The operating method of claim 21 for erasing, programming and reading data on the flash memory, wherein the p-type doped well voltage is about 20V when the erase operation is performed.

23. (original) The operating method of claim 21 for erasing, programming and reading data on the flash memory, wherein when the programming operation is performed, the wordline voltage is between 10V and 12V, and the bitline voltage is between 5V and 6.5V.

24. (original) The operating method of claim 21 to erase, programming and reading data on the flash memory, wherein when the read operation is performed, the wordline voltage is about 3.3V, and the bitline voltage is about 1.5V.